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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,271

03/29/2004

A. Bruce Downie

P05623US01

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27142

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11/21/2005

MCKEE, VOORHEES & SEASE, P.L.C.

ATTN: PIONEER HI-BRED

801 GRAND AVENUE, SUITE 3200

DES MOINES, IA 50309-2721

EXAMINER

KUMAR, VINOD

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,271

Applicant(s)

DOWNIE ET AL.

Examiner

Vinod Kumar

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6, 13, 17, 20, 22, 30, 31 and 33, drawn to an isolated nucleic acid encoding a heterologous stress-responsive protein, or wherein a plant cell comprising said nucleic acid molecule, or a method for conferring or improving stress resistance in a plant or a method for directing raffinose production in a plant comprising transforming said plant with said nucleic acid operably linked with a promoter, wherein promoter could be heterologous, or a transformed plant having stably incorporated into its genome said nucleic acid encoding said protein, classified in class 800, subclass 289.
- II. Claims 7-12, drawn to a nucleic acid molecule that drives expression of an operably linked nucleic acid sequence in a plant cell, or wherein a plant cell having stably incorporated in its genome said nucleic acid molecule, classified in class 536, subclass 24.1
- III. Claim 16, drawn to an isolated polypeptide having stress regulatory-like activity, classified in class 530, subclass 350.

Claims 14 and 15 cannot be placed into any Group because these claims improperly refer to a method.

Claims 18, 19, 21 and 23-29 cannot be placed in any Group because it is too

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unclear what they are drawn to. Both claims are dependent on product claims, but refer to those claims as methods.

The inventions of Group I-III are patentably distinct from each other because of the following reasons:

Inventions of Group I and II are patentably distinct. The invention of Group I requires expression of a heterologous stress-responsive protein in a transgenic plant cell and comprises a method for conferring or improving stress resistance to a plant or directing raffinose production in plant. There is no such requirement for the invention of Group II.

Furthermore, searching the inventions of Groups I and II together would impose a serious search burden. In the instant case, the search for conferring or improving stress tolerance in a plant and the search for a method for directing raffinose production in a plant of Group I and search for promoter sequences of Group II are not coextensive.

The polypeptide of Group III and nucleic acid molecules of Group I-II are patentably distinct inventions for the following reasons:

Polypeptides are made up of amino acids, and polynucleotides are composed of purine and pyrimidine units. These are structurally distinct molecules; any relationship between a polynucleotide and polypeptide is dependent upon the information provided by the nucleic acid sequence open reading frame as it corresponds to the primary amino acid sequence of the encoded polypeptide. Polypeptides of Group III can be also obtained from a natural source using biochemical procedures. For example, the

polypeptide can be purified from plant tissues using affinity chromatography or over-expressed in a bacteria and subsequently recovered and purified. Further, the nucleic acid molecules of Group II are non-coding sequences.

Furthermore, searching the inventions of Group III and I-II together would impose a serious search burden. In the instant case, the search of the polypeptides and the polynucleotides are not coextensive. The inventions of Group III and I-II have separate status in the art as shown by different classifications. In cases such as this one where descriptive sequence information is provided, the sequences are searched inappropriate databases. Additionally, there is search burden also in non-patent literature. There may be journal articles that only describe the polypeptide. Due to this, it would be burdensome to search the inventions of Group I and II together.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by the literature search required for one group is not required for other group, restriction for examination purposes as indicated is proper.

For each of the inventions above, restriction to one of the following is required under 35 USC 121. **Applicants are also required to elect** one nucleic acid sequence and one encoded amino acid sequence to be examined in conjunction with the elected Group of claims. In the present case if the applicants elect Group I, II or III invention; election for one nucleotide sequence is also required, from nucleotide sequences with SEQ ID NOs: 1, 3, 5, 7, 9 or 11. This requirement is not to be construed as a requirement for an election of species, since each nucleotide sequence is not a member

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of single genus of invention, but constitutes an independent and patentably distinct invention.

A telephone call was made to Heidi Nebel on November 2, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod Kumar whose telephone number is (571) 272-4445. The examiner can normally be reached on 8.30 a.m. to 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William (Gary) G. Jones can be reached on (571) 272-0745. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300

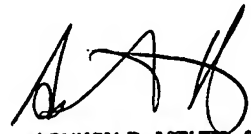
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ASHWIN D. MENTA, PH.D.
PRIMARY EXAMINER